

ABSTRACT

[00122] A control system (18) and method for an automotive vehicle includes a roll rate sensor (34) generating a roll rate signal, a lateral acceleration sensor (32) generating a lateral acceleration signal, a pitch rate sensor (37) generating a pitch rate signal, a yaw rate sensor (28) generating a yaw rate signal and a controller (26). The controller (26) is coupled to the roll rate sensor (34), the lateral acceleration sensor, the yaw rate sensor and the pitch rate sensor. The controller (26) determines a roll velocity total from the roll rate signal, the yaw rate signal and the pitch rate signal. The controller (26) also determines a relative roll angle from the roll rate signal and the lateral acceleration signal. The controller (26) determines a wheel departure angle from the total roll velocity. The controller (26) determines a calculated roll signal from the wheel departure angle and the relative roll angle signal.